



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/565,677	10/26/2006	Helmut Mauser	284686US6PCT	7514
22850 7590 01/13/2011 OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P. 1940 DUKE STREET ALEXANDRIA, VA 22314				
EXAMINER				
PATEL, VINOD D				
ART UNIT		PAPER NUMBER		
3742				
NOTIFICATION DATE		DELIVERY MODE		
01/13/2011		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com

oblonpat@oblon.com

jgardner@oblon.com

**Office Action Summary****Application No.**

10/565,677

**Applicant(s)**

MAUSER, HELMUT

**Examiner**

VINOD D. PATEL

**Art Unit**

3742

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 November 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-942)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/05/10 has been entered.

***Arguments/Amendments***

2. Applicant's arguments/amendments have been fully considered but they are not persuasive as for the following reason:
3. The text of those sections of Title 35, U.S. Code not included in this section can be found in the previous office action.

***Drawings***

4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the interruptions in the covering comprise slot antennas tuned to said communication radiation through the communication window as claimed in claim 7 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure

number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-6, 8-9 and 12-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Sol et al. (US6559419).

With respect to claim 1, Sol et al. discloses (Figure 2) a substrate (2, 4), comprising: an electrically conducting and heatable coating (3, 3a, 3b, 3c); at least one communication window (4a, 4b, 4d) made in the coating in the form of an interruption,

the window being able to allow communication radiation used as signal carrying information to be transmitted there through and whose wavelength lies in a span of wavelengths that can be reflected or absorbed by the coating; and an electrically conducting element (7b, 7c, 7d) in contact with at least one part of edges of the window and in contact with the coating, wherein the communication window is provided with an electrically conducting covering (7b, 7c, 7d) and electrically connected to said electrically conducting element (similar to applicant invention, see page 7, of remarks "electrically conducting element is that portion of covering 6 in the window 5 is the covering."), said covering having a plurality of interruptions (4a, 4b, 4d) in the window.

With respect to claim 2, Sol et al. discloses the covering (7b, 7c, 7d, 7g) is deposited on the coating in such a way that it covers on all the sides the edges of the communication window without coating and comprises said electrically conducting element as shown in Figure 2.

With respect to claim 3, Sol et al. discloses the covering has a lower ohmic resistance per unit surface area than the ohmic resistance per unit surface area of said coating inherently (prior art discloses similar to applicants as shown in the figures).

With respect to claim 4, Sol et al. discloses the coating can be energized and heated by an electrical voltage by means of at least two current collecting strips electrodes (7g, 9) and the electrically conducting covering is situated in the current flow between the current collecting strips electrodes as shown in Figure 2.

With respect to claim 5, Sol et al. discloses the covering can also be heated through resistance heating (prior art discloses similar to applicants as shown in the figures).

With respect to claim 6, Sol et al. discloses interruptions (4a, 4b, 4d)(Figure 2) are made in the covering, which increase its permeability to said communication radiation through the communication window (4a, 4b, 4d) but which do not however prevent current flow through the covering.

With respect to claim 8, Sol et al. discloses the interruptions (4a, 4b, 4d) (Figure2) in the covering (7b, 7c, 7d) are formed perpendicularly to one another.

With respect to claim 9, Sol et al. discloses the interruptions (4a, 4b, 4d) (Figure 2) take the form of in the covering comprise crossed slots and/or of right slots oriented alternately perpendicularly to one another.

With respect to claim 11, Sol et al. discloses the substrate comprising at least two current collecting strips (7, 9) in the form of printed bands, applied by printing, for applying a heating voltage to the coating.

With respect to claim 13, Sol et al. discloses the said covering forms at least in part a sun visor.

With respect to claim 14, Sol et al. discloses the substrate constituted by comprising a laminated pane composed of a first rigid pane (2, 4) provided with the coating and the covering and a second rigid pane (2, 4); and an adhesive layer ( column 4, lines 1-10) disposed between the first and second rigid pane.

With respect to claim 15, Sol et al. discloses the covering exhibits have a lower ohmic resistance per unit surface area than the ohmic resistance per unit surface area of said coating.

With respect to claim 16, Sol et al. discloses the coating can be energized and by an electrical voltage by means of at least two current collecting strips (7, 9), and the electrically conducting covering is situated in the current flow between the current collecting strips.

With respect to claim 17, Sol et al. discloses the coating can be energized and hence heated by an electrical voltage by means of at least two current collecting strips electrodes (7, 9), and the electrically conducting covering is situated in the current flow between the current collecting strips.

With respect to claim 18, Sol et al. discloses interruptions (4a, 4b, 4d) (Figure 2) are made in the covering, which increase its permeability to said communication radiation through the communication window but which do not however prevent current flow through the covering.

With respect to claim 19, Sol et al. discloses interruptions (4a, 4b, 4d) (Figure 2) are made in the covering, which increase its permeability to said communication radiation through the communication window but which do not however prevent current flow through the covering.

With respect to claim 20, Sol et al. discloses interruptions (4a, 4b, 4d) (Figure 2) are made in the covering, which increase its permeability to said communication

radiation through the communication window but which do not however prevent current flow through the covering.

With respect to claim 21, the covering substantially covers said window as shown in Figure 2.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sol et al. (US6559419) as applied to claims 1-6, 8-9 and 12-20 above, and further in view of Sauer (US5867129).

With respect to claim 7, Sol et al. discloses the interruptions (4a, 4b, 4d) (Figure 2) in the covering (7b, 7c, 7d)) comprise slot for communication radiation through the communication window (4a, 4b, 4d) but silent with respect to the covering comprise slot antennas tuned to said communication radiation through the communication window.



Sauer discloses (abstract), "An automobile windshield covered with a transparent electrically conducting layer, on which some hollowed spaces are provided in the form of slots. The length of these slots is a function of the wavelength of the microwave radiation. The microwave radiation, as used for transmission of information in portable telephone sets or remote surveillance systems of toll roads, for example, is absorbed by the conducting layer to again be retransmitted by the slots which act as antennas". And (column 1, lines 63 thru column 2, line 5, "In contrast, the slot antenna of the invention does not provide a direct contact between the electrically conducting layer of the window and the transmitter and/or the receiver inside the vehicle. In this case, the retransmission of microwave energy is a simple effect of the radiation which, in turn, is received by the antenna of the receiving device. The window antenna naturally produces this effect in two directions, that is, at whatever side of the electrically isolated space where the receiver and the transmitter are located".

It would have been obvious to one of ordinary skilled in the art at the time of invention to provide the covering comprise slot antennas tuned to said communication radiation through the communication window as taught by Sauer in order to allow communication for the device of Sol et al.

10. Claims 10 & 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sol et al. (US6559419) as applied to claims 1-6, 8-9 and 12-20 above, and further in view of Cutcher (US5390595).

With respect to claim 10, Sol et al. discloses conductive coating (3) is printed on substrate (2) is silent with respect to the covering comprises ink.

With respect to claim 12, Sol et al. discloses the covering and the current collecting strips electrodes (4) are composed of the same substance.

Cutcher discloses a substrate (14) comprises electro coating (16) of conductive ink (16) and current collecting strips (20) of conductive ink printed on a substrate (14).

It would have been obvious to one of ordinary skilled in the art at the time of invention to provide coating and current collecting strips of ink, printed on the substrate as taught by Cutcher in order to provide a heated substrate for the substrate of Sol et al.

#### REMARKS

11. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

Examiner respectfully disagrees with the applicant with respect to Sol et al. does not disclose "the window having plurality of interruptions". Sol et al. clearly discloses a covering in the window having a plurality of interruptions (4a, 4b, 4d) as disclosed in the disclosure as well as shown in the Figures. Sol et al. discloses, (column 3-4) **"Heatable coating portions 3a, 3b and 3c are spaced apart from one another by insulating areas 4a, 4b formed by the coating deletion (i.e., see deletion/insulating area 4a between heatable coating portions 3a and 3b, and deletion/insulating area 4b between heatable coating portions 3b and 3c). Generally, coating deletions are illustrated by broken lines 12 in FIGS. 1-3. Because the coating 3 is deleted at 4a (via deletion lines 12b and 12c) and 4b (via deletion lines 12d and 12e), the different spaced apart heatable coating portions 3a, 3b and 3c can be electrically insulated from one another to at least some extent (completely or at least**

**partially). For purposes of example only, insulating/deletion areas 4a and 4b can be formed in the shape of a fine line (e.g., providing a gap of about 0.5 mm or less). Optionally, in certain embodiments, the coating 3 may also be deleted along at least one edge of the window (e.g., see coating deletion area 4c along edge(s) of the window) so as to accommodate a bus bar lead, extension(s), or the like. Optionally, coating 3 may also be deleted at area 4d (i.e., rain sensor or toll device window) via deletion line 12g so as to allow a rain sensor, toll device, or the like to more easily transmit and/or receive signals through that portion of the window. As shown, the toll device and/or rain sensor coating deletion area 4d is preferably enclosed by deletion line 12g and thus by coating 3 of the intermediate coating portion 3b."**

Examiner respectfully disagrees with the applicant with respect to (page 7-8 of remarks) "Sol et al. simply provides a deletion area 4d with no mention whatsoever of turning the window to communication radiation through window. Sol et al. discloses as disclosed above and abstract, **"This protruding portion enables, for example and without limitation, a rain sensor or toll device to efficiently transmit and/or receive signals (e.g. IR signals, RF signals, or the like) through the window at an area behind the protrusion where the coating has been deleted."**

The cited art discloses all the claimed limitations. The combination of prior art is proper because, (a) Combining prior art elements according to known methods to yield predictable results; (b) Simple substitution of one known element for another to obtain predictable results; (c) Use of known technique to improve similar devices (methods, or

products) in the same way; (d) Applying a known technique to a known device (method, or product) ready for improvement to yield predictable results; (e) " Obvious to try " – choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success; (f) Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces if the variations are predictable to one of ordinary skill in the art; (g) Some teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed invention.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vinod D. Patel whose telephone number is (571)272-4785. The examiner can normally be reached on 7.15 am TO 3.45 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tu B. Hoang can be reached on 571-272-4780. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Vinod D. Patel/ 1/3/11

Examiner, Art Unit 3742

/Geoffrey S Evans/

Primary Examiner, Art Unit 3742